



MEMORANDUM

TO: Laura Casey cc: 11.1126.1000.001.01

FROM: Diane Sinkowski, Jim Buchert

DATE: March 18, 2005

SUBJECT: Review of “Exposure and Screening-level Risk Assessment for Carpet Fiber and Food Wrap Scenarios Associated with Pigment Red 144/214” (March 2004)

I have reviewed the revised risk assessment and response to comments provided by Clariant, per the technical direction provided by EPA Region 1 on February 24, 2004, and have the following comments:

1. The volatilization factor, VF, calculated in this assessment is presented with the units of kg/m^3 . A unit analysis of 3 of the equations seems to contradict this.
 - In Equations 1 and 9, the VF needs to be in units of m^3/kg , so that the inhalation factor can be added to the other factors in the denominator, which are in kg^2/mg . This yields the correct units for the PCB concentration in carpeting, $\text{CNC}_{\text{carpet}}$ of mg/kg .
 - In Equation 8, if the units of Cg are mg/m^3 , and the units of M are mg/kg , then the units of VF need to be m^3/kg .
2. Where does room surface area fit into these calculations? Is a certain area incorporated in the empirical equation used (Equation 2)? Typically, when an air concentration is calculated from soil or groundwater, the area of the source needs to be know and is incorporated into the calculation because a larger area results in a higher concentration.

Please feel free to contact me if you have any questions.